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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,324	10/31/2003	Xuedong D. Huang	M61.12-0586	9812

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EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,324

Applicant(s)

HUANG, XUEDONG D.

Examiner

DANH C. LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-24 is/are allowed.
- 6) ☒ Claim(s) 1-8, 11 and 18 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 12-17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8/27/04 been considered by the examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-8, 11, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (US 6,052,567) in view of Jeong (US 5,873,728).**

As to claim 1, Ito teaches a mobile computing device (figure 6-11):

an antenna adapted to be oriented toward the user;

a first microphone positioned on the antenna and adapted to convert audible speech from the user into speech signals; and

a speech sensor outputs a sensor signal.

Ito fails to teach a speech sensor outputting a sensor signal indicative of whether the user is speaking. Jeong teaches a speech sensor outputting a sensor signal indicative of whether the user is speaking (figure 1, 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Jeong into the system of Ito in order to output a level signal corresponding to sound signal level.

As to claim 2, the combination of Ito and Jeong teaches the mobile computing device of claim 1, wherein the speech sensor outputs the sensor signal based on a non-audio input generated by speech action of the user (Jeong, col.2, line 59-col.3, line 7).

As to claim 3, the combination of Ito and Jeong teaches the mobile computing device of claim 2, wherein the speech sensor senses an image indicative of movement of the user's mouth (Ito figure 4).

As to claim 4, the combination of Ito and Jeong teaches the mobile computing device of claim 2, wherein the speech sensor is positioned on the antenna (Ito figure 4).

As to claim 5, the combination of Ito and Jeong teaches the mobile computing device of claim 2, wherein the speech sensor is positioned on a housing of the mobile computing device (Ito figure 4).

As to claim 6, the combination of Ito and Jeong teaches the mobile computing device of claim 2, and further comprising a speech detector component outputting a speech detection signal indicative of whether the user speaking based on the sensor signal (Jeong, figure 1).

As to claim 7, the combination of Ito and Jeong teaches the mobile computing device of claim 6, wherein the first microphone is enabled or disabled as a function of the speech detection signal (Jeong col.1, lines 39-46).

As to claim 8, the combination of Ito and Jeong teaches the mobile computing device of claim 6, and further comprising a speech recognition component coupled to the first microphone and adapted to perform speech recognition algorithms on the speech signals to generate speech recognition data (Jeong col.2, lines 24-41).

As to claim 11, the combination of Ito and Jeong teaches the mobile computing device claim 6, wherein the speech detector component outputs the speech detection signal based on a first characteristic of the sensor signal and based on the speech signals from the first microphone.

As to claim 18, the combination of Ito and Jeong teaches the mobile computing device mobile computing device of claim and further comprising a housing, wherein the antenna is rotatably coupled to a housing, and wherein the first microphone is positioned on a distal end of the antenna (Ito figure 1).

Allowable Subject Matter

Claims 9, 10, 12-17, 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 9, the teaching of above prior arts either alone or in combination fails to teach an analog-to-digital converter coupling the first microphone to the speech recognition component and digitizing the speech signals, the analog-to-digital converter providing the digitized speech signals to speech recognition component, and the speech recognition component performing the speech recognition algorithms on the digitized speech signals to generate the speech recognition data.

As to claim 12, the teaching of above prior arts either alone or in combination fails to teach the first characteristic of the sensor signal has a first level when the user is speaking and a second level when the user is not speaking and wherein the speech detector component outputs the speech detection signal based on a level of the first

characteristic of the sensor signal relative to a baseline level of the first characteristic that comprises a predetermined one of the first and second levels of the characteristic.

Claims 20-24 are allowed.

As to claim 20, the teaching of above prior arts either alone or in combination fails to teach digitizing the speech signals, providing a sensor signal based on a non-audio input generated by speech action of the user and indicative of whether the user is speaking and performing speech recognition algorithms on the digitized speech signals using a microprocessor positioned within the mobile computing device to generate speech recognition data if the sensor signal is indicative of the user speaking.

Dependent claims 10, 13-17, 21-24 are allowable for the same reason.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A. Nickum (US 2001/0039195) teaches portable communication apparatus.
- B. Shiraki (US 6,028,556) teaches portable radio apparatus.
- C. Ogasawara (US 6,091,972) teaches mobile communication unit.
- D. Maes (US 6,411,933) teaches method and apparatus for correlating biometric attributes and biometric attribute production features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



February 3, 2006
DAN CONG LEE
PRIMARY EXAMINER